

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM M. WATERS

Appeal No. 1997-3854
Application No. 08/414,824

ON BRIEF

Before THOMAS, FLEMING, and DIXON, **Administrative Patent Judges**.
DIXON, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 4 and 10, which are all of the claims pending in this application.

We AFFIRM.

BACKGROUND

The appellant's invention relates to a communications system using a sharply bandlimited keying waveform. An understanding of the invention can be derived from a reading of exemplary claim 10¹, which is reproduced below.

10. A method for transmitting a digital signal comprised of the steps of:
- sampling a first digital data signal to produce a digital data sample;
 - generating a sharply bandlimited keying waveform for the digital data sample;
 - weighting the sharply bandlimited keying waveform with a corresponding data sample value and truncating outside an appropriate time interval;
 - converting the weighted sharply bandlimited keying waveform into an analog signal; and
 - transmitting the analog signal.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Waters et al. (Waters patent)	4,468,794	Aug. 28, 1984
Tiemann	4,896,152	Jan. 23, 1990
Hawkins et al. (Hawkins)	4,973,977	Nov. 27, 1990
Walker	5,185,765	Feb. 09, 1993

¹We note that the language of claim 10 states “converting the weighted sharply bandlimited keying waveform into an analog signal” rather than converting the weighted and truncated waveform/data. Therefore, the language of claims 1 and 10 is broader than argued by the examiner and appellant.

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Newhall

5,448,206

Sep. 05, 1995
(Filed Oct. 18, 1993)

Helms et al., "Truncation Error of Sampling-Theorem Expansions," Proceedings of the IRE, pp. 179-84, 1962.

Croisier et al., "The Digital Echo Modulation," IEEE Transactions on Communication Technology, Vol. COM-18, No. 4, pp. 367-76, 1970.

Waters et al., "Bandpass Signal Sampling and Coherent Detection," IEEE Transactions on Aerospace and Electronic Systems, Vol. AES-18, No. 4, pp. 731-36, 1982.

Claims 1, 4 and 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Newhall in view of (Helms et al. or Waters et al. or the Waters patent) in view of (Walker or Croisier et al. or Hawkins or Tiemann).

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 13, mailed Apr. 22, 1997) for the examiner's reasoning in support of the rejections, and to the appellant's brief (Paper No. 12, filed Apr. 2, 1997) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

In accordance with 37 CFR § 1.192(c)(7), we have selected claim 10 as the representative claim from the appellants' grouping of claims 1, 4 and 10 to decide the appeal on this rejection under 35 U.S.C. § 103. (See brief at page 3.)

From our review of the examiner's rejection, we find that the examiner has set forth a ***prima facie*** case of obviousness including a motivation for the combination of the prior art teachings. "To reject claims in an application under section 103, an examiner must show an un rebutted ***prima facie*** case of obviousness. **See In re Deuel**, 51 F.3d 1552, 1557, 34 USPQ2d 1210, 1214 (Fed. Cir. 1995). In the absence of a proper ***prima facie*** case of obviousness, an applicant who complies with the other statutory requirements is entitled to a patent. **See In re Oetiker**, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of ***prima facie*** obviousness or by rebutting the ***prima facie*** case with evidence of secondary indicia of nonobviousness." **In re Rouffet**, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1455 (Fed. Cir. 1998). Here, we find that appellants have not overcome the convincing ***prima facie*** case of obviousness by showing insufficient evidence of obviousness or by rebutting the ***prima facie*** case with secondary evidence. Therefore, we will sustain the rejection of claim 10. Similarly, claims 1 and 4 fall with claim 10.

Appellant argues that Newhall is not prior art under 35 U.S.C. § 102 because the invention was reduced to practice prior to the filing date of Newhall. (See brief at page 6.)

The examiner maintains that this argument is not persuasive since appellant has provided no evidence of prior conception and/or reduction to practice. (See answer at page 4.) We agree with the examiner.

Appellant argues that Newhall does additional functions which are not addressed in the present invention whereas “[a]ppellant conserves bandwidth (increase data rate) only; a distortionless channel or one that is otherwise corrected is presumed by Appellant.” (See brief at pages 6-7.) The examiner maintains that the composing function of Newhall is used in a similar manner as the keying function and “the fact that Newhall’s [disclosed] invention accomplishes functions in addition to those claimed in the instant application is irrelevant.” (See answer at page 5.) We agree with the examiner.

Appellant sets forth a discussion of a great number of functions which appellant associates with claim 1. (See brief at page 7.) We disagree with appellant’s characterization of the claimed invention. We find that many of the recited functions are not explicitly recited or fairly supported by the language of claims 1 and 10.

Appellant argues that the system of Newhall uses analog devices and processing. Appellant cites no express support for this argument. (See brief at pages 7-8.) The examiner cites to a number of locations in the text of Newhall which strongly imply or suggest digital operation. (See answer at page 6.) We agree with the examiner that Newhall is digitally-based. The examiner further advances that even if Newhall were

analog that it would have been obvious to one of ordinary skill in the art at the time of the invention to perform these functions digitally. **Id.** We agree with the examiner.

Appellant argues the disclosure of Newhall is in error and the composing function is not the same as that claimed. (See brief at page 8.) The examiner maintains that this argument is “irrelevant” as long as Newhall teaches or suggests the use of the composing function(s). (See answer at page 6.) We agree with the examiner that the claim does not recite details of the keying function(s) used. Therefore, argument that Newhall uses different functions than recited in appellant’s specification is not persuasive with respect to the claimed invention.

Appellant argues the individual references on pages 8-10 of the brief. The examiner maintains that argument to the individual references is not persuasive. (See answer at page 7.) We agree with the examiner.

Appellant disagrees generally with the examiner’s statements and addresses utility of the invention at page 10 of the brief, but does not specifically present any argument therein with respect to the claimed invention. This argument is not persuasive.

Appellant argues that the claimed device proposes the use of a specific waveform that is different from those suggested by the prior art and for different purposes. (See brief at page 11.) The examiner maintains that “such waveforms would be useful in a system of the type in the instant invention.” (See answer at page 7.) We agree with the examiner

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and further note the “specific waveform” has not been set forth in the language of claims 1 and 10. Therefore, argument thereto is not persuasive.

Appellant argues that the combined teachings of the applied references do not teach or suggest the claimed invention and that the examiner used improper hindsight to reconstruct the claimed invention. (See brief at pages 11- 12.) We disagree with appellant. We find that the examiner has set forth a ***prima facie*** case of obviousness which has not been rebutted or shown to be deficient. Therefore, we will sustain the rejection of claim 10. Similarly, the rejection of claims 1 and 4 is sustained since they are grouped with claim 10.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 4 and 10 under 35 U.S.C. § 103 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may
be extended under 37 CFR § 1.136(a).

AFFIRMED

JAMES D. THOMAS
Administrative Patent Judge

MICHAEL R. FLEMING
Administrative Patent Judge

JOSEPH L. DIXON
Administrative Patent Judge

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APPLICATION NO. 08/414,824

APJ DIXON

APJ THOMAS

APJ FLEMING

DECISION: **AFFIRMED**

Prepared By: TINA

DRAFT TYPED: 26 Apr 02

FINAL TYPED: